Remarks

Applicants cancel without prejudice claims 32-34 in light of the restriction requirement and Applicants hereby affirm the election to examine claims 1-31 and 35-45 without traverse.

Applicants note with appreciation that claims 1-8, 25-31, 35, and 39-45 are allowed and that patentable material is indicated in claims 10, 12-14, 19, 20, 24, 37, and 38.

New claims 46-48 are added. New claim 46 is essentially already allowed claim 7 rewritten as a method of making. Accordingly, Applicants respectfully submit that claim 46 is allowable. Claims 47 and 48 are dependent from claim 46. Because Applicants have deleted three claims including one independent claim and two dependent claim, and added three claims of the same type, Applicants respectfully submit that no additional fees are due.

Claim Rejections-35 U.S.C. § 102

Claims 9, 11, 15-18, 21-23, and 36 stand rejected under 35 U.S.C. 102(b) as being anticipated by Moore (US 4,310,059).

The Office Action states that "since the high density section can be formed in pieces or sections, the high density material would have some degree of axial movement and therefore reads on axial slidable." See page 4, lines 4-5. The Office Action does not provide any reference for this conclusion in Moore, but apparently assumes it is inherent.

General Comments:

With all respect, Applicants submit that in making the rejection the Examiner has misread or misunderstood one of the basic concepts, if not the basic concept, of Moore. Contrary to the Office Action's statement above, Moore teaches exactly the opposite, i.e, Moore teaches preventing axial movement. Moore is concerned about how to avoid problematic impact and shock on high density materials. See for instance Moore Col. 1, lines 27-32, 34-38, 42-58.

Moore's solution is to prevent any sliding of the high density materials with respect to the outer tubular in which the high density section is located. Moore uses a heavy steel outer tubular or jacket 16 to handle all the drilling stress forces. Moore teaches preloading the high density section in compression within the jacket 16. See Col. 1, lines 64-68. Moore says in this way " the core (20) and the jacket (16)..move together". See Col. 1, line 66 and Figure 1. In other words, Moore teaches that the core and outer tubular do not slide with respect to each other. Moore uses the more resiliant thick steel outer tubular for absorbing shock and bending stresses, while still obtaining the benefit of the high density material. See Col. 2, lines 14-44. Moore goes on to say that "substantially none of the drilling torque and drilling weight ...is transmitted through the core."

Claim 8:

With respect to Applicants' claim 8, the limitation calls for high density section mounted within the outer tubular such that "said high density weight section being slidable with respect to said first outer tubular to permit axial movement of said first high density weight section with respect to said first outer tubular." As best as can be determined, the rejection is apparently based on a theory of inherency because no citations are provided in Moore for a high density section mounted to be slidable with respect to the outer tubular.

> In relying upon the theory of inherency, the examiner must provide a basis in fact and/or technical reasoning to reasonably support the determination that the allegedly inherent characteristic necessarily flows from the teachings of the applied prior art. Ex parte Levy, 17 USPQ2d 1461, 1464 (Bd. Pat. App. & Inter. 1990).

Not only does this feature not necessarily flow from the teachings of Moore as required to support a rejection, Moore actually teaches the opposite. Accordingly, Applicant respectfully submits the rejection to claim 8 is traversed.

Claim 11:

Applicants' claim 11 calls for an annulus between the high density section and the outer tubular. Applicants respectfully note that the Office Action actually misquotes the claim language and apparently assumes that the claim is calling for an annulus in which the high density section is positioned. Instead, claim 11 calls for an annulus between the high density section and the outer tubular. In any case, Moore intentionally eliminates the annulus. Instead, Moore teaches that the high density section utilizes thermal construction techniques for "shrink-fitting" these components together. See Moore, Col. 3, lines 20-33. and lines 54-64. After shrink-fitting, there is no annulus. Accordingly, Applicant respectfully submits the rejection to claim 11 is traversed.

Claim 15:

Respectfully, Applicants submit that the Office Action's statement that the "assembly is balanced" is unsupported because no citation in Moore is given. This rejection is apparently based on a theory of inherency. Moore does not state that his assembly is statically balanced and does not provide any apparent means to do so. Moreover, balancing weight sections is not inherent in Moore or the prior art. There is really no point in statically balancing prior art weight sections in a drill string because once the assembly is in compression, then the weight sections buckle by some unpredictable amount which negates any benefit obtained from statically balancing the weight section. Flexibility is generally required of a drill string. So the considerable cost and effort to balance prior art weight sections is normally wasted. On the other hand, Applicants' novel approach creates a downward inner force that results in the weight sections being in tension rather than compression. It is believed this is a very valuable contribution to the art. Now, using Applicants' downhole assembly, there is very good reason to spend the time and the money to statically balance the weight section and good reason to believe that downhole vibrations previously caused by slight buckling, weight variations, as well as lack of balance, will be eliminated.

Applicants respectfully submit the following quotes from M.P.E. P. §2112 regarding rejections based on imputed "inherent" characteristics of a reference:

> The fact that a certain result or characteristic may occur or be present in the prior art is not sufficient to establish the inherency of that result or characteristic. In re Rijckaert, 9 F.3d 1531, 1534, 28 USPQ2d 1955, 1957 (Fed. Cir. 1993)(reversed rejection because inherency was based on what would result due to optimization of conditions, not what was necessarily present in the prior art); In re Oelrich, 666 F.2d 578, 581-82, 212 USPQ 323, 326 (CCPA 1981).

Because there is no reason at all to believe that Moore would statically balance his high density section for the reasons discussed above, Applicants submit the rejection is traversed. As well, because the rejection to base claim 9 is respectfully traversed, Applicants respectfully submit that the rejection to dependent claim 15 is traversed.

Claim 16:

Claim 16 calls for a plurality of weight sections that can be mounted in selectable rotational positions, and depends from claim 15 which calls for static balancing. As taught in Applicants' specification, the weight sections may be rotated to achieve static balancing. On the other hand, Moore permanently affixes the weight sections to the outer tubular so that they cannot be placed in selectable rotational positions to achieve balancing. In Moore, the weight elements are fixed in one position rather than mounted in selected rotational positions. Accordingly, Applicants submit the rejection is traversed.

Claims 17 and 18:

The Office Action states that Moore teaches a weight section that has a thickness twice as large as the thickness of the outer tubular member. However, this is simply not true. Instead,

Moore stresses that the outer tubular must be thick in order to handle the drilling stresses. Figure 1 clearly does not show a weight section with a thickness twice as large as the weight section. Moore gives an example in Col. 4, lines 8-10 where Moore says the outer tubular 16 has a thickness of 1.5 inches and the high density section 20 is 1.625. Applicants' claim 17 calls for a thickness of the core 25% greater than the wall which, in this example, would require a core thickness of 1.875. Clearly, Moore does not show this. For this example, claim 18 would require a core thickness of 2.25 inches. The borehole has limited space and Moore's requirements for a thick outer jacket are contrary to Applicants' claim language.

> Establishing anticipation under 35 U.S.C. §102(b) requires that a single prior art reference contain every element recited in the claim in as complete detail as is contained in the claim. "The identical invention must be shown in as complete detail as is contained in the claim." *Richardson v. Suzuki Motor Co.*, 868 F.2d 1226, 1236, 9 USPQ2d 1913, 1920 (Fed. Cir 1989) See also M.P.E.P. (Manual of Patent Examining Procedure) § 2131. Further, "[A]nticipation requires that ... the prior art reference must be enabling, thus placing the alleged disclosed matter in the possession of the public." *Akzo n.v. v U.S. Int'l Trade Commission*, 808 F.2d 1471, 1 USPQ 2d 1241, 1245 (Fed. Cir. 1986) (citing *In re Brown*, 329 F.2d 1006, 1011, 141 USPQ 245, 249 (C.C.P.A. 1964). "There must be no difference between the claimed invention and the reference disclosure..." *Scripps Clinic & Research Foundation v. Genetech Inc.*, 927 F.2d 1565, 18 USPQ 2d 1001, 1010 (Fed Cir. 1991).

Moore clearly does not show Applicants identical invention in as complete detail as is contained in the claim. Accordingly, the rejection to claims 17 and 18 is traversed.

Claims 21 and 22:

Claims 21 and 22 depend from claim 17 for which Applicants respectfully submit the

rejection is traversed. Accordingly, the rejection to claims dependent therefrom are also traversed.

Claims 23 and 36:

Claim 23 calls for a slidable weight section with respect to the outer tubular. As discussed in detail above, Moore clearly does not disclose this feature and in fact teaches the exact opposite.

> "There must be no difference between the claimed invention and the reference disclosure..." *Scripps Clinic & Research Foundation v. Genetech Inc.*, 927 F.2d 1565, 18 USPQ 2d 1001, 1010 (Fed Cir. 1991).

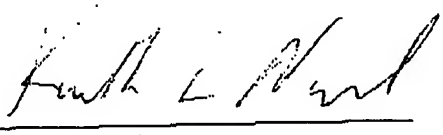
Because Moore does not show all the elements of claim 23 and 36, the rejection is now respectfully traversed.

Summary:

If for some reason the Examiner disagrees with Applicants' statements regarding Moore, then Applicants' attorney would appreciate the consideration of an Interview prior to issuing a Final Office Action so that the basis for any maintained rejections can be discussed.

Otherwise, Applicants respectfully propose that the application now stands in condition for allowance and earnestly requests that a Notice of Allowance be issued forthwith in the near future.

Respectfully submitted,



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I hereby certify that this correspondence is being facsimile transmitted to the U.S. Patent and Trademark Office, Fax No. 571-273-8300, on the 28th day of July, 2005.

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